

IN THE CLAIMS:

The current claims follow. For claims not marked as amended in this response, any difference in the claims below and the previous state of the claims is unintentional and in the nature of a typographical error.

1. (Currently Amended) A system for verifying data in a shadow memory, comprising:
a shadow memory initializer operable to detect an initialization event, ~~and~~ to initialize a shadow memory based on the initialization event, and to calculate original verification data for the shadow memory, the shadow memory comprising shadow data; and
a shadow memory verifier operable to detect a verification event and to verify the shadow data based on the verification event.

2. (Currently Amended) The system of Claim 1, the shadow memory initializer operable to initialize the shadow memory by ~~calculating and~~ storing the original verification data for the shadow memory.

3. (Original) The system of Claim 2, the shadow memory verifier operable to verify the shadow data by calculating current verification data and comparing the current verification data to the original verification data, the shadow data verified when the current verification data matches the original verification data and the shadow data rejected when the current verification data fails to

match the original verification data.

4. (Original) The system of Claim 3, the initialization event comprising one of the system being powered up and the shadow data being rejected.

5. (Original) The system of Claim 1, the verification event comprising one of a read request being received, a specified clock edge occurring, and a specified number of clock edges passing.

6. (Currently Amended) A system for verifying data in a shadow memory, comprising:
a main memory operable to store main data persistently;
a shadow memory operable to store shadow data temporarily, the shadow data comprising a copy of the main data;
a shadow memory initializer operable to detect an initialization event, ~~and~~ to initialize the shadow memory based on the initialization event, and to calculate original verification data for the shadow memory; and
a shadow memory verifier operable to detect a verification event and to verify the shadow data based on the verification event.

7. (Currently Amended) The system of Claim 6, the shadow memory initializer operable to initialize the shadow memory by ~~calculating and~~ storing the original verification data for the

shadow memory.

8. (Original) The system of Claim 7, the shadow memory verifier operable to verify the shadow data by calculating current verification data and comparing the current verification data to the original verification data, the shadow data verified when the current verification data matches the original verification data and the shadow data rejected when the current verification data fails to match the original verification data.

9. (Original) The system of Claim 8, the initialization event comprising one of the system being powered up and the shadow data being rejected.

10. (Original) The system of Claim 7, the shadow memory initializer operable to store the original verification data in the shadow memory.

11. (Original) The system of Claim 6, the verification event comprising one of a read request being received, a specified clock edge occurring, and a specified number of clock edges passing.

12. (Original) The system of Claim 6, the main memory comprising an EEPROM and the shadow memory comprising a RAM.

13. (Currently Amended) A method for verifying data in a shadow memory, comprising:
initializing a shadow memory, the shadow memory comprising shadow data;
detecting a verification event; ~~and~~
verifying the shadow data based on the verification event; and
calculating original verification data.
14. (Original) The method of Claim 13, further comprising detecting an initialization event,
initializing the shadow memory comprising initializing the shadow memory based on the
initialization event.
15. (Currently Amended) The method of Claim 13, initializing the shadow memory
comprising copying main data stored in a main memory into the shadow memory; ~~calculating~~
~~original verification data~~, and storing the original verification data.
16. (Original) The method of Claim 15, verifying the shadow data comprising calculating
current verification data and comparing the current verification data to the original verification data.
17. (Original) The method of Claim 16, further comprising verifying the shadow data as
valid when the current verification data matches the original verification data.

18. (Original) The method of Claim 16, further comprising rejecting the shadow data when the current verification data fails to match the original verification data.

19. (Original) The method of Claim 18, the initialization event comprising one of the system being powered up and the shadow data being rejected.

20. (Original) The method of Claim 13, the verification event comprising one of a read request being received, a specified clock edge occurring, and a specified number of clock edges passing.